Application No. 10/577,928

Reply to Office Action of May 14, 2010

IN THE CLAIMS

Please amend the claims as follows:

1-20. (Canceled)

21. (Currently Amended) A storage medium having stored thereon data representing

at least one stream of content cells, the content cells being linked in accordance with

navigation data, wherein at least one of said navigation data and the at least one stream of

content cells is arranged such that accessing the data on the storage medium in a copy mode,

in which does not take consideration of the content cells are not accessed according to said

navigation data, provides disturbed data access of reduced quality, whereas accessing the data

on the storage medium in a reproduction mode, in consideration of which the content cells are

accessed according to said navigation data, provides undisturbed access,

the storage medium having further stored thereon at least one reproduction

obstructing cell physically stored before or after a linked content cell, said at least one

reproduction obstructing cell being arranged such that access in said reproduction mode

includes navigating around said at least one reproduction obstructing cell when linked content

cells are accessed, whereas access in said copy mode includes accessing linked content cells

in addition to said at least one reproduction obstructing cell.

22. (Previously Presented) The storage medium according to claim 21, wherein the

copy mode is a generally linear access mode.

23-24. (Canceled)

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25. (Previously Presented) The storage medium according to claim 21, wherein an access of said at least one reproduction obstructing cell prohibits or disturbs a further reproduction or reduces an entertainment value of reproduced content that is originally stored within the content cells on the storage medium.

26. (Previously Presented) The storage medium according to claim 25, wherein said at least one reproduction obstructing cell includes data having an effect that data stored on the storage medium does not conform with the DVD physical specification by at least one of the group comprising:

infringing rules of EFM+ coding;
setting incorrect ECC data for at least one of PI and PO;
setting at least one of incorrect EDC, ID, CPR_MAI and IED data;
addition of illegal UDF file system data;
setting of illegal UDF file system data.

27. (Previously Presented) The storage medium according to claim 21, wherein said at least one reproduction obstructing cell includes data of at least one of the group comprising:

data that does not conform to a streaming media standard appropriate to the storage medium;

data that generates permutations of reproduced content stored within the content cells; data that adds content unrelated to the content stored within neighboring content cells; data that adds advertising content stored within neighboring content cells.

- 28. (Previously Presented) The storage medium according to claim 21, wherein said at least one reproduction obstructing cell is a stream of linked reproduction obstructing cells that is interleaved with at least one stream of content cells, wherein each of the stream linked cells provides one playback path, and the playback path corresponding to the linked reproduction obstructing cell is not followed by a reproduction device accessing the storage medium in accordance with said reproduction mode.
- 29. (Previously Presented) The storage medium according to claim 21, wherein said navigation data includes branch commands that are arranged in at least one of pre-commands and post-commands of program chains that include at least one program or in cell commands within programs, which are defined as a sequence of content cells.
- 30. (Currently Amended) A method to provide copy protection of a storage medium having stored thereon data representing at least one stream of content cells, the method comprising:

linking the content cells in accordance with navigation data, wherein at least one of said navigation data and the at least one stream of content cells is arranged such that accessing the data on the storage medium in a copy mode, in which does not take eonsideration of said the content cells are not accessed in accordance with the navigation data, provides disturbed data access of reduced quality, whereas accessing the data on the storage medium in a reproduction mode in consideration of said, in which the content cells are accessed in accordance with the navigation data, provides undisturbed access; and

physically storing at least one reproduction obstructing cell before or after a linked content cell, said at least one reproduction obstructing cell being arranged such that access in said reproduction mode includes navigating around said at least one reproduction obstructing

cell when linked content cells are accessed, whereas access in said copy mode includes accessing linked content cells in addition to said at least one reproduction obstructing cell.

- 31. (Previously Presented) The method according to claim 30, wherein the copy mode is a generally linear access mode.
 - 32-33. (Canceled)
- 34. (Previously Presented) The method according to claim 30, further including: selecting a content of said at least one reproduction obstruction cell so that an access of said at least one reproducing obstruction cell prohibits or disturbs a further reproduction or reduces an entertainment value of reproduced content that is originally stored within the content cells on the storage medium.
- 35. (Previously Presented) The method according to claim 30, further including: inserting data into said of least one reproduction obstructing cell having an effect that data stored on the storage medium does not conform with the DVD physical specification by at least one of the group comprising:

infringing rules of EFM+ coding;
setting incorrect ECC data for at least one of PI and PO;
setting at least one of incorrect EDC, ID, CPR_MAI and IED data;
addition of illegal UDF file system data;
setting of illegal UDF file system data.

36. (Previously Presented) The method according to claim 30, further including:

inserting data into said at least one reproduction obstructing cell including data of at least one of the group comprising:

data that does not conform to a streaming media standard appropriate to the storage medium;

data that generates permutations of reproduced content stored within the content cells; data that adds content unrelated to the content stored within neighboring content cells; data that adds advertising content stored within neighboring content cells.

37. (Previously Presented) The method according to claim 30, further including: using navigation data to provide the linking of said linked content cells, in particular branch commands that are arranged in at least one of pre-commands and post-commands of program chains that include at least one program or in cell commands within programs, which are defined as a sequence of content cells.

- 38. (Previously Presented) The method according to claim 30, further including: interleaving said at least one reproduction obstructing cell, which constitutes a stream of linked reproduction obstructing cells which at least one stream of content cells, wherein each of the stream of linked cells provides one playback path, and the playback path corresponding to the linked reproduction obstructing cell is not followed by a reproduction device accessing the data carrier in accordance with said reproduction mode.
- 39. (Currently Amended) A method for producing at least one copy of at least a portion of data stored on a first storage medium, the first storage medium having stored thereon data representing at least one stream of content cells, the method comprising:

linking the content cells in accordance with navigation data, wherein to produce the at least one copy, data representing the at least one stream of cells is accessed in eonsideration of accordance with the navigation data, and wherein said accessed data is transferred as a copy to a second storage medium.

- 40. (Currently Amended) The method according to claim 39, further including: determining all reproduction obstructing cells physically stored before or after a linked content cell, and modifying or removing the determined reproduction obstructing cells such that the copy of the storage medium is not obstructed.
- 41. (Previously Presented) A computer readable medium storing a program that when executed on a computer or digital signal processor, causes the computer or the digital signal processor to perform the method steps as defined in claim 30.

42-45. (Canceled)

- 46. (Previously Presented) The method of claim 31, further including the step of providing standard type file system structures and file content and non-standard type file system structures and file content used to locate the linked content cells on the storage medium, respectively, wherein said non-standard type file system structures and file content routes a read out device to reproduction obstruction data and cyclic data.
- 47. (Previously Presented) The method of claim 39, further including the step determining of a linking order of the at least one stream of linked content cells and physically

storing the at least one stream of linked content cells such that a reproduction of the copy of the first storage medium is not obstructed.

- 48. (Previously Presented) The method of claim 39, further including locating a root navigation file only using at least one of file system structures and file content related to the linked content cells as described in the standard of the first storage medium.
- 49. (Currently Amended) A storage medium having stored thereon data representing at least one stream of content cells, the content cells being linked in accordance with navigation data, wherein at least one of said navigation data and the at least one stream of content cells is arranged such that accessing the data on the data carrier in a copy mode that does not take consideration of, in which the content cells are not accessed in accordance with said navigation data, provides disturbed data access of reduced quality, whereas accessing the data on the data carrier in a reproduction mode in consideration of the, in which the content cells are accessed in accordance with said navigation data, provides undisturbed access[[,]]

the storage medium further including a physical storage arrangement of at least one content cell of the at least one stream of linked content cells that is not in conformity with the linking order of the content cells such that said copy mode will access said at least one stream of linked content cells in an order as physically stored, and said reproduction mode will access said at least one stream of linked content cells in an order conforming to the linking order of the content cells.

50. (Currently Amended) [[A]] <u>The</u> storage medium having stored thereon data representing at least one stream of content cells, the content cells being linked in accordance with navigation data, wherein at least one of said navigation data and the at least one stream

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of content cells is arranged such that accessing the data on the data carrier in a copy mode that does not take consideration of said navigation data provides disturbed data access of reduced quality, whereas accessing the data on the data carrier in a reproduction mode in consideration of the said navigation data provides undisturbed access according to Claim 49, the storage medium further including

first file system data structures and file content conforming to a storage medium standard and second file system data structures and file content not conforming to the storage medium standard, wherein the second file system data structures and file content route said copy mode to reproduction obstruction data or cyclic data, and wherein said reproduction mode will navigate around said reproduction obstruction data or cyclic data.

51. (Currently Amended) A method to provide copy protection of a storage medium having stored thereon data representing at least one stream of content cells, the method comprising:

linking the content cells in accordance with navigation data, wherein at least one of said navigation data and the at least one stream of content cells is arranged such that accessing the data on the storage medium in a copy mode, in which does not take eonsideration of the content cells are not accessed in accordance with said navigation data, provides disturbed data access of reduced quality, whereas accessing the data on the storage medium in a reproduction mode, in which the content cells are accessed in accordance with in consideration of said navigation data, provides undisturbed access[[; and]]

storing at least one content cell of the at least one stream of linked content cells that is not in conformity with the linking order of the content cells such that said copy mode will access said at least one stream of linked content cells in an order as physically stored, and

said reproduction mode will access said at least one stream of linked content cells in an order conforming to the linking order of the content cells.

52. (Currently Amended) [[A]] <u>The</u> method to provide copy protection of a storage medium having stored thereon data representing at least one stream of content cells according to Claim 51, the method further comprising:

linking the content cells in accordance with navigation data, wherein at least one of said navigation data and the at least one stream of content cells is arranged such that accessing the data on the storage medium in a copy mode, which does not take consideration of said navigation data, provides disturbed data access of reduced quality, whereas accessing the data on the storage medium in a reproduction mode in consideration of said navigation data provides undisturbed access; and

storing first file system data structures and file content conforming to a storage medium standard and second file system data structures and file content not conforming to the storage medium standard, wherein the second file system data structures and file content route said copy mode to reproduction obstruction data or cyclic data, and wherein said reproduction mode will navigate around said reproduction obstruction data or cyclic data.

53. (New) The storage medium according to claim 49,

the storage medium further including a physical storage arrangement of at least one content cell of the at least one stream of linked content cells that is not in conformity with the linking order of the content cells such that said copy mode will access said at least one stream of linked content cells in an order as physically stored, and said reproduction mode will access said at least one stream of linked content cells in an order conforming to the linking order of the content cells.

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- 54. (New) The storage medium according to claim 49, wherein a number of content cells that is accessed in the copy mode is greater than or equal to a number of content cells that is accessed according to the reproduction mode.
- 55. (New) The storage medium according to claim 49, wherein the navigation data is stored in a route navigation file that is stored on the storage medium.
- 56. (New) The storage medium according to claim 49, wherein the navigation data is configured to be used to allow user interaction.
 - 57. (New) The storage medium according to claim 49,

the storage medium further including a physical storage arrangement of at least one content cell of the at least one stream of linked content cells that is not in conformity with the linking order of the content cells such that said copy mode will access said at least one stream of linked content cells in an order as physically stored, and said reproduction mode will access said at least one stream of linked content cells in an order conforming to the linking order of the content cells.

58. (New) The method to provide copy protection of a storage medium according to claim 51, wherein a number of content cells that is accessed in the copy mode is greater or equal to a number of content cells that is accessed according to the reproduction mode.

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59. (New) The method to provide copy protection of a storage medium according to

claim 51, wherein the navigation data is stored in a route navigation file that is stored on the

storage medium.

60. (New) The method to provide copy protection of a storage medium according to

claim 51, wherein the navigation data is configured to be used to allow user interaction.

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